



# Videoendoscopic sentinel lymph node detection with icg and bilateral inguinofemoral lymphadenectomy in vulvar cancer comba-ozdemir technique

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## Objective

The authors present a surgical film for vulvar cancer surgery, which was performed via video endoscopy.

## Methods

An 88-year-old woman with squamous cell carcinoma of the vulva and who underwent radical vulvectomy was treated with sentinel lymph node (SLN) and bilateral inguinofemoral lymphadenectomy, which is preferably performed via video endoscopic surgery with a near-infrared fluorescence video endoscopy system. SLN mapping was performed using indocyanine green and near-infrared fluorescence mapping.

## Results

SLNs were detected in the left superficial inguinal area. The surgeons performed bilateral inguinofemoral lymphadenectomy.

## Conclusion

No postoperative early or late complications developed, and the patient was discharged 7 days after surgery. Stage 1B vulvar cancer was identified.

**Keywords:** Sentinel lymph node biopsy; Minimally invasive surgery; Vulvar cancer

The aim of the video was to show videoendoscopic inguinofemoral sentinel lymph node (SLN) dissection with indocyanine green (ICG). The surgeons presented a step-by-step video demonstration of the surgical procedure.

An individualized surgical approach for patients undergoing videoendoscopic bilateral inguinofemoral lymphadenectomy instead of open surgery has the advantages of reduced wound and surgical complications and lymphedema [1,2]. In recent years, the application of the sentinel lymph node SLN procedure has been recommended for vulvar cancer. SLNs were used to determine lymph node status and the presence of micrometastases [3].

An 88-year-old woman with vulvar squamous cell carcinoma presented with complaints of groin pain and vulvar itching. This was revealed to be due to a 2-cm vulvar mass 3 cm

from the clitoris, between the left labium minor and labium major. She had been cured of breast cancer, and there was

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no medical history of any disease or surgery. Informed consent was obtained from the patient, and institutional review board approval was not required. Radical vulvectomy was performed with SLN and bilateral inguofemoral lymphadenectomy, which is preferably performed via videoendoscopic surgery with a near-infrared fluorescence video endoscopy system. First, a surgical space was created with the surgeon's fingers placed in the groin so that trocars could be inserted. The trocars were then placed bilaterally, as shown in the video. After this procedure, SLN mapping was performed using ICG and near-infrared fluorescence mapping. Each quadrant of the tumor was injected with 1.25 mg/ ml of ICG. A 10-mm 30-degree standard-length optical camera for near-infrared fluorescence imaging was used. SLNs were detected in the left superficial inguinal area. As there was clinical suspicion of metastasis in the SLN, and this was our first case with SLN mapping, although inguinal and femoral node involvement was the most significant prognostic factor [4], we opted to perform bilateral inguofemoral lymphadenectomy. SLN mapping took 45 minutes. The total operative time was 205 minutes.

The pain score was six on a linear visual analog scale after surgery. Intravenous paracetamol was administered as a painkiller. No postoperative early or late complications developed, and the patient was discharged 7 days after surgery. Stage 1B vulvar cancer detected in the pathology results. Seven and four lymph nodes were harvested on the left and right sides, respectively. Recurrence has not yet been detected at the time of writing. Videoendoscopic SLN biopsy in vulvar cancer is a feasible procedure, and there may be increased usage of SLNs in early stage vulvar cancer with a videoendoscopic approach.

## Conflict of interest

No potential conflict of interest relevant to this article was reported.

## Ethical approval

This study does not require approval of the Institutional review board. The study was performed in accordance with the principles of the Declaration of Helsinki.

## Patient consent

Patient's written consent and use of the images approval were obtained.

## Funding information

None.

## Video clip

Video can be found with this article online at <https://doi.org/10.5468/ogs.21164>.

## Author Contributions

Cihan Comba: performance of the procedure, research concept and design, collection and assembly of data, data analysis and interpretation, drafting of the manuscript, critical revision of the manuscript.

Sakir, Volkan Erdogan: research concept and design, collection and assembly of data, data analysis.

Aliye Erdogan: research concept; narration, data analysis.

Aysenur Bagdatli: performance of the procedure, collection and assembly of data, data analysis.

Busra Seker Atas: collection and assembly of data, data analysis and interpretation.

Omer Demir: data analysis and interpretation, drafting of the manuscript, critical revision of the manuscript.

Isa Aykut Ozdemir: research concept and design, collection, study, and assessment of blood samples.

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